

Product Evaluation RC-##

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Effective ##/##/####

Revised ##/##/####

*The following product has been evaluated for compliance with the wind loads specified in **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation 3 years after the effective date.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

24 Gauge ML-150 Metal Roofing Panels manufactured by

Northwest Roof Tile & Metal, LLC.

6807 Theall, Suite C

Houston, Texas 77066

Telephone: (281) 893-8382

Will be accepted for use in areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The ML-150 metal roofing panel is minimum 24 gauge galvalume steel panels with an optional paint finish. The metal roofing panels have a maximum coverage of 16". The panel has a 1 1/2" tall mechanical double lock standing seam rib. The 24 Ga. Steel material is ASTM A 792 AZ55, Grade 50, with a 50 ksi yield point with optional painted finishes. Panels must be formed within the panel rollformer specifications and tolerances.

Panel Rollformer: Schleich Quadro-Plus Rollformer
Metalforming, Inc
100 International Drive
Peachtree City, GA 30269

LIMITATIONS

Roof Framing: The metal roofing panels shall be installed over minimum 15/32" plywood roof decking.

New Roof Framing Attachment: The roof framing shall meet or exceed the uplift requirements of the International Residential Code or International Building Code and shall be installed as required for resistance to wind loads.

Design Wind Pressures: The design pressure uplift load resistance shall be as specified in Table 1.

Roof Slope: The metal roofing panels shall not be installed on roofs with a roof slope less than 2:12.

Table 1

Design Wind Pressure (psf)	Panel Gauge	Panel Seam	Panel Clip	Clip Spacing	Clip Fastener
-59.8	24 Ga. Steel	Double Lock	Sliding Clip	24" O.C.	(2) #12-11
-123.5	24 Ga. Steel	Double Lock	Sliding Clip	6" O.C.	(2) #12-11

Installation Over an Existing Roof Covering: Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, wood shingles or shakes, built-up roofing, or roll roofing applied over an existing, solid roof deck of minimum 15/32" plywood. Note: Inspection of the existing roof deck must be made prior to the installation of the roof panels. The condition of the existing roof deck must be acceptable to receive the metal roofing panels before the metal roofing panel installation proceeds. NOTE: Underlayment is not required to be installed.

INSTALLATION INSTRUCTIONS

General: The metal roofing panels shall be installed in accordance with the manufacturer's recommended installation instructions and this evaluation report.

Panels: The metal roofing panels shall be secured to the roof covering as specified in Table 1 and in accordance with this section.

Underlayment: For installations over a solid deck, a minimum of one layer of No. 30 (Type II) asphalt felt shall be used. The underlayment used shall comply with one or more of the following: ASTM D 226, ASTM D 4869, or ASTM D 1970. The underlayment shall be installed per manufacturer's installation instructions.

Attachment of Metal Roof Panels to the Roof Deck: The metal roofing panels shall be secured to the roof substrate in the following way:

Roofing Panels to Plywood Deck: The panels shall be installed using a sliding clip with (2) No. 12-11 x 1" long Pancake Type A. The fasteners shall be long enough to ensure a minimum penetration of 1/4" below the roof deck. (Note: If the metal roofing panels are installed over an existing roof covering, then the fastener length shall be increased so that the fasteners are long enough to ensure a minimum penetration of 1/4" below the existing plywood roof decking.) The required size and quantity of fasteners as well as the maximum allowable spacing of the fasteners is specified in Table 1.

Panel Clip: Two piece sliding clip. 22 Ga. x 4.18" long Galvanized steel top, 16 Ga. x 1.88" long Galvanized steel base. Clip manufactured by SFS Intec, Inc.

Panel Seam: The panel is seamed to a 180 degree seam (double lock) with a mechanical seamer.

Panel Ends, End Laps and Edges: As required by the manufacture.

Trims, Closures, and Accessories: Components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim shall be installed as required by the manufacturer.

Alternative Fasteners: Substitution of equivalent fasteners shall meet the following requirements:

- No. 12-11 x 1" Pancake Type A
 - Ultimate withdrawal (pullout) ≥ 377 lbs. in minimum 15/32" plywood.

Note: The manufacturer's installation instructions shall be available on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.